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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,184

03/18/2004

Gilles Tatham

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT

PAPER NUMBER

3664

MAIL DATE

DELIVERY MODE

10/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/803,184	Applicant(s) TATHAM ET AL.	
	Examiner BRIAN J. BROADHEAD	Art Unit 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5-4-07 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2 through 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staggs, 6711479, in view of Stratton et al., "Certification and Operational Performance of GPS-Based Landing Systems."

3. As per claims 14, 15, 2 through 5, and 13, Staggs discloses information sources (2) which provide at least one indication of position relating to the actual position of the aircraft and information making it possible to characterize a virtual approach axis in figures 15, 16 and 17; an information processing unit (3), which processes information emanating from said information sources (2) and which is able to determine lateral and vertical deviations between the actual position of the aircraft and the position that it

would have if it were on said virtual approach axis on lines 34-45, on column 2; a user device (4), which uses the results of processing implemented by said information processing unit (3) as reference number 132 or 124; wherein said information processing unit (3) comprises is able to implement a non precision approach, by determining the lateral and vertical deviations between the actual position of the aircraft and the position that it would have if it were on said virtual approach axis on lines 2-65, on column 2; a flight management computer (126); the information sources are a plurality of sensors connected to the flight management computer (112,114,116,120,108); an inertial reference unit that determines a first position on lines 34-38, on column 13; and a database containing information for forming a virtual approach axis (20). Staggs does not disclose a landing aid multimode receiver intended for implementing a precision approach and moreover comprising an assisted approach mode function, which is integrated into said receiver; and wherein said landing aid multimode receiver comprises a satellite-based positioning function, linked with a satellite-based positioning system or common guidance laws between modes. Stratton et al. teach a landing aid multimode receiver intended for implementing a precision approach and moreover comprising an assisted approach mode function, which is integrated into said receiver; and wherein said landing aid multimode receiver comprises a satellite-based positioning function, linked with a satellite-based positioning system and common guidance laws between modes in the summary. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Stratton et al in the invention of Staggs because such modification

would allow for performing all types of landings and can provide information during all phases of flight and provide a common interface and procedure for ILS and GLS as stated in Stratton et al.

4. As per claims 6, 7, 8, 9, 10, 11, and 12, Staggs and Stratton disclose the limitations as set forth above. Staggs does disclose that the position data is calculated from both the GPS data and inertial data on lines 34-36, on column 13. Staggs and Stratton do not disclose how and in which processor the refined position is calculated from the GPS and inertial position data. Staggs does disclose that the position data is calculated from both the GPS data and inertial data on lines 34-36, on column 13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the refined position data in any processor attached to the data bus(specific link) because such modification is a design choice that would not provide unexpected results.

Response to Arguments

5. Applicant's arguments with respect to claims 2-15 have been considered but are moot in view of the new ground(s) of rejection. The newly cited reference discloses the basics of a GNLU-930 MMR without the priority date questions that Fagan presented. Stratton et al. disclose the features of a GNLU-930 and the common procedures (guidance laws) and interfaces used when performing ILS (precision approach) versus GLS (non-precision approach). Staggs also already discloses the database added to the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN J. BROADHEAD whose telephone number is (571)272-6957. The examiner can normally be reached on Monday through Thursday or Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Brian J. Broadhead/
Examiner, Art Unit 3664